Docket No.: FEGERT Appl. No.: 10/517,640

AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES
MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS

1. (Canceled)

2. (Currently amended) The apparatus as claimed in claim [[1]] 9, further

comprising at least one receiver which detects three time-dependent

magnetic field components.

3. (Currently amended) The apparatus as claimed in claim [[1]] 9, further

comprising an evaluation unit for determining at least one parameter selected

from the group consisting of position, direction of the the instrument axis, and

roll angle of the instrument.

4. (Currently amended) The apparatus as claimed in claim [[1]] 9, further

comprising a magnetic field sensor disposed in the instrument axis, and a

magnet which is disposed outside the instrument axis.

5.-6. (Canceled)

7. (Currently amended) The apparatus as claimed in claim [[6]] 9, wherein the

drive is an electrical drive.

8. (Currently amended) The apparatus as claimed in claim [[6]] 9, wherein the

drive is a hydraulic drive using liquid to drive the magnet.

9. (Currently amended) [[The]] An apparatus as claimed in claim 6 for location

of an instrument, comprising:

at least one magnet which produces a magnetic moment perpendicular

to an axis of the instrument and is rotatable independently of the instrument;

<u>and</u>

6

Docket No.: FEGERT Appl. No.: 10/517,640

a drive for rotating the magnet which is independent of the instrument shaft,

wherein a roll angle of the instrument is measured by a variable magnetic field component, which depends on the roll angle.

- (Previously presented) The apparatus as claimed in claim 9, further comprising means for providing a reproducible deflection of the magnet from its rotation axis.
- 11. (Previously presented) The apparatus as claimed in claim 9, further comprising a coupling which temporarily interrupts the rotation of the magnet.
- 12. (Previously presented) The apparatus as claimed in claim 9, wherein the magnet is composed of magnet elements that move with respect to one another and whose elements are shifted by a driver at a specific roll angle.
- 13. (Currently amended) The apparatus as claimed in claim [[1]] 9, wherein the instrument has a member selected from the group consisting of drill, cutting or impact apparatus, at least one needle, and er at least one set of forceps.
- 14. (Currently amended) The apparatus as claimed in claim [[1]] 9, wherein the instrument has at least one opening for ejection of a liquid.
- 15. (Currently amended) The apparatus as claimed in claim [[1]] 9, wherein the instrument has an apparatus for production/emission of light beams, laser beams, radioactive beams, sound waves or ultrasound waves.
- 16. (Currently amended) The apparatus as claimed in claim [[1]] 9, wherein the instrument has an apparatus for recording optical images or ultrasound images.

Docket No.: FEGERT Appl. No.: 10/517,640

17. (Currently amended) The apparatus as claimed in claim [[1]] 9, wherein the instrument has an apparatus for emission of electrical pulses or for recording electrical data.

- 18. (Currently amended) The apparatus as claimed in claim [[1]] <u>9</u>, further comprising two or more transmitters and/or receivers for processing signals commensurate with a position of the instrument at different points.
- 19. (Previously presented) The apparatus as claimed in claim 18, wherein each transmitter is constructed as a permanent magnet and/or electromagnet and configured for a transmitter identification by different frequencies, amplitudes and/or by the production of different analog or digital values.
- 20. (Currently amended) The apparatus as claimed in claim [[1]] <u>9</u>, further comprising a frequency modulation and/or amplitude modulation for variation of the magnetic field generated by the magnet.
- 21. (Currently amended) The apparatus as claimed in claim [[1]] 9, further comprising a gradual shielding of the magnet.

22.-25 (Canceled)

26. (Currently amended) [[The]] A method as claimed in claim 22 of determining the location of an instrument, further comprising the step steps of:

providing at least one magnet, which rotates in an area of the instrument to produce a magnetic moment perpendicular to an axis of the instrument;

<u>detecting three time-dependent magnetic field components of the magnetic field; and</u>

frequency modulation for variation of the magnetic field generated by the magnet.

Docket No.: FEGERT Appl. No.: 10/517,640

27. (Previously presented) The method as claimed in claim 26 for frequency-selective amplification, for elimination of disturbance fields, or for distinguishing between different magnetic probes.

28.-30. (Canceled)

31. (Currently amended) [[The]] A method as claimed in claim 23 of determining the location of an instrument, further comprising the step steps of:

producing a magnetic moment by a rotating magnet perpendicular to an axis of the instrument, with the magnet configured as a transmitter and connected to the instrument;

detecting three time-dependent magnetic field components by a receiver; and

frequency modulation for variation of the magnetic field generated by the magnet.

32. (Canceled)